

1423

# NAVAL POSTGRADUATE SCHOOL

## Monterey, California



LONG-RANGE PLANNING PERSPECTIVES  
ON NUCLEAR WAR AT SEA:  
NAVAL NUCLEAR CRISIS MANAGEMENT

by

KERRY M. KARTCHNER

SEPTEMBER 1988

Approved for public release; unlimited  
distribution

Prepared for:  
Chief of Naval Operations, (OP-65)  
Washington, D.C. 20350-0999

FedDocs  
D 208.14/2  
NPS-56-88-032

STUDLEY KNOX LIBRARY  
NAVAL POSTGRADUATE SCHOOL  
MONTEREY, CALIFORNIA 93943-5002

Fed 1002  
L 208.1412:  
NPS-56-88-032

NAVAL POSTGRADUATE SCHOOL  
MONTEREY, CALIFORNIA

Rear Admiral Robert C. Austin  
Superintendent

Harrison Shull  
Provost

The work reported herein was supported by the Office of  
the Chief of Naval Operations and funded by the Naval  
Postgraduate School.

Reproduction of all or part of this report is authorized.

This report was prepared by:

## REPORT DOCUMENTATION PAGE

NAVAL POSTGRADUATE SCHOOL  
MONTEREY CA 93943-5100

1 REPORT SECURITY CLASSIFICATION UNCLASSIFIED		1b RESTRICTIVE MARKINGS NONE	
2 SECURITY CLASSIFICATION AUTHORITY		3 DISTRIBUTION AVAILABILITY OF REPORT Approved for public release; distribution is unlimited	
5 DECLASSIFICATION/DOWNGRADING SCHEDULE			
PERFORMING ORGANIZATION REPORT NUMBER(S) NPS-56-88-032		5 MONITORING ORGANIZATION REPORT NUMBER(S)	
NAME OF PERFORMING ORGANIZATION Naval Postgraduate School		6b OFFICE SYMBOL (If applicable) Code 56	7a NAME OF MONITORING ORGANIZATION Chief of Naval Operations (OP-65)
ADDRESS (City, State, and ZIP Code) Monterey, CA 93943-5100		7b ADDRESS (City, State, and ZIP Code) Washington, DC 20350-0999	
NAME OF FUNDING/SPONSORING ORGANIZATION Naval Postgraduate School		8b OFFICE SYMBOL (If applicable)	9 PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER O&MN Direct Funding
ADDRESS (City, State, and ZIP Code) Monterey, CA 93943-5100		10 SOURCE OF FUNDING NUMBERS PROGRAM ELEMENT NO PROJECT NO TASK NO WORK UNIT ACCESSION NO	
TITLE (Include Security Classification) Long-Range Planning Perspectives on Nuclear War at Sea: Naval Nuclear Crisis Management			
PERSONAL AUTHOR(S) Kerry M. Kartchner			
a TYPE OF REPORT Final	13b TIME COVERED FROM Sep 87 TO Aug 88	14 DATE OF REPORT (Year, Month, Day) Sep 1988	15 PAGE COUNT 65
SUPPLEMENTARY NOTATION Disclaimer: The analysis and conclusions in this report are the author's alone and should not be construed as necessarily representing those of the U.S. Navy, the Naval Postgraduate School, or any other U.S. Government agency.			
COSATI CODES		18 SUBJECT TERMS (Continue on reverse if necessary and identify by block number)	
FIELD	GROUP	SUB-GROUP	
			Crisis Management Tactical Nuclear Weapons
			Maritime Strategy Nuclear War at Sea
ABSTRACT (Continue on reverse if necessary and identify by block number) This report presents a conceptual discussion of the implications of maritime nuclear weapons for crisis management, and discusses the following themes: (1) strategic nuclear weapons have played significant crisis control and termination functions in the past; (2) current U.S. Navy maritime theater nuclear warfare capabilities, by virtue of their dispersal throughout the fleet, are very likely to be involved either directly or indirectly in future crisis responses by naval forces; (3) crisis response is a key feature of the Maritime Strategy's plan for deterring war and controlling escalation; and, (4) maritime theater nuclear capabilities may both enhance and impede naval crisis management objectives.			
20 DISTRIBUTION/AVAILABILITY OF ABSTRACT <input checked="" type="checkbox"/> UNCLASSIFIED/UNLIMITED <input type="checkbox"/> SAME AS RPT <input type="checkbox"/> DTIC USERS		21 ABSTRACT SECURITY CLASSIFICATION UNCLASSIFIED	
a NAME OF RESPONSIBLE INDIVIDUAL JAMES J. TRITTEN, CDR, USN, CHAIRMAN, NSA		22b TELEPHONE (Include Area Code) (408) 646-2521	22c OFFICE SYMBOL Code 56Tr

### ACKNOWLEDGMENTS

The author is grateful to the following individuals who read all or part of earlier drafts of this report and provided valuable comments and insights: Commander Bradd Hayes, Dr. Scott D. Sagan, Commander James J. Tritten, Captain Kurt Juroff, Lieutenant Nancy Palumbo, Prof. Jan Breemer, and Lieutenant Commander Emile Tosso. The author also benefitted greatly from discussions with Naval personnel at the Center for Naval Analyses. Additionally, special thanks are due to Lieutenant Nancy Palumbo and Lieutenant Commander Emile Tosso for their support, encouragement, and administrative assistance. Whatever weaknesses or faults remain in this final draft are the responsibility of the author alone.

TABLE OF CONTENTS

ACKNOWLEDGMENTS	ii
TABLE OF CONTENTS	iii
LIST OF TABLES	v
SUMMARY	vi
 I. BACKGROUND AND RESEARCH OBJECTIVES	 1
A. Nuclear War at Sea	1
B. Research Questions	4
C. Nuclear Weapons and Crisis Management	5
 II. CRISIS MANAGEMENT AND THE MARITIME STRATEGY	 16
A. The Navy's Role in Crisis Management	16
B. Crisis Management and the Maritime Strategy	18
 III. NUCLEAR CRISIS MANAGEMENT AT SEA	 20
A. Introductory Remarks	20
B. Navy Nuclear Assets	20
C. The Implications of Naval Nuclear Weapons in Crises: Literature Survey	24
 IV. ISSUES ASSOCIATED WITH NUCLEAR CRISIS MANAGEMENT AT SEA	 25
A. Introductory Remarks	25
B. Issues Associated with Nuclear Crisis Management At Sea	26



V. THE SOVIET THREAT TO NUCLEAR CRISIS MANAGEMENT AT SEA	33
A. Introductory Remarks	33
B. The Soviet Nuclear Crisis Record	33
C. Soviet Views of the Military and Political Value of Nuclear Weapons	35
D. Soviets Views of Crisis Escalation as a Path to Nuclear War	37
E. Soviet Approaches to Crisis Management	39
F. Summary	40
VI. CONCLUSIONS AND IMPLICATIONS: LONG-RANGE PLANNING PERSPECTIVES	41
SELECTED REFERENCES	48

## LIST OF TABLES

<u>Table</u>		<u>Page</u>
TABLE 1	CRISES INVOLVING STRATEGIC NUCLEAR FORCES, 1946-1975	6
TABLE 2	SUMMARY OF POTENTIAL U.S. CRISIS OBJECTIVES	14
TABLE 3	TYPES OF U.S. CRISIS ACTIONS	15
TABLE 4	U.S. NAVY NUCLEAR-CAPABLE LAUNCH PLATFORMS	21
TABLE 5	SEA-BASED TACTICAL NUCLEAR WEAPONS	22
TABLE 6	U.S. AND SOVIET NAVY TACTICAL NUCLEAR FORCE LOADINGS	23

## SUMMARY

The following report presents a conceptual discussion of the implications of maritime nuclear weapons for crisis management. The Maritime Strategy proposes a doctrine for development and deployment of U.S. naval forces capable of deterring war, controlling escalation, and terminating conflicts on terms favorable to the United States. The capability for effective crisis response is an important dimension of deterring war and controlling escalation.

This report reaches the following conclusions:

- 1) Strategic nuclear weapons have played significant crisis control and termination functions in the past.
- 2) Current U.S. Navy maritime theater nuclear warfare capabilities, by virtue of their dispersal throughout the fleet, are very likely to be involved either directly or indirectly in future crisis responses by naval forces.
- 3) Crisis response is a key feature of the Maritime Strategy's plan for deterring war and controlling escalation.
- 4) Maritime theater nuclear capabilities may both enhance and impede naval crisis management objectives. Specifically, nuclear-capable platforms may enhance naval crisis management by:
  - promoting strategic deterrence;
  - signaling U.S. resolve to counter Soviet escalatory actions;
  - enhancing the U.S. capability to respond to a wide range of nuclear and non-nuclear threats;



- demonstrating to allies the depth of U.S. commitment to maintain alliance interests and counter Soviet and non-Soviet nuclear threats to allied territory;
- fielding a capability to handle specific war-fighting missions (such as land attack) should the crisis escalate to all-out war.

Maritime theater nuclear weapons may impede or complicate naval crisis management by:

- intimidating allies and neutral states committed domestically to nuclear free zones;
- inadvertently increasing incentives for an enemy to preempt naval nuclear assets;
- provoking Soviet involvement, obliging the Soviets to extend nuclear guarantees to allies who might feel implicitly or explicitly threatened by U.S. nuclear weapons; and,
- displacing conventional munitions that may be more applicable in limited combat situations.

The U.S. Navy must consider any crisis as a potential prelude to armed hostilities, and it must be prepared to transition effectively and successfully to higher levels of conflict at the direction of the national command authorities should the situation and U.S. national interests so require.

Naval policy and fleet doctrine should exploit the positive effects of nuclear-capable assets on crisis management efforts. Conversely, naval policy and fleet doctrine must be prepared to mitigate the negative impact of the presence of naval nuclear weapons in situations of increasing tension and uncertainty.



Thus far the chief purpose of our military establishment has been to win wars. From now on its chief purpose must be to avert them. It can have almost no other useful purpose.

- Bernard Brodie, 1946

Today there is no longer any such thing as military strategy; there is only crisis management.

- Robert S. McNamara, 1962

## I. BACKGROUND AND RESEARCH OBJECTIVES

### A. Nuclear War at Sea

Nuclear war at sea has been and continues to be an issue of great concern to the U.S. Navy. The success of U.S. foreign and defense policy rests on the Navy's ability to effectively respond to a wide variety of contingencies, including deterring nuclear war at sea. As one naval officer noted: "Ultimately, the success of the United States' overall national warfighting strategy quite possibly hinges on the US Navy's capability to deter or win a nuclear conflict at sea."<sup>1</sup> In particular, deterring nuclear war

---

<sup>1</sup> CDR Raymond E. Thomas, USN, "Maritime Theater Nuclear Warfare: Matching Strategy and Capability," in National Defense University, Essays on Strategy, (Washington, D.C.: National Defense University Press, 1985), p. 41.

at sea and on land is of primary concern to the Navy's long-range planning efforts.

As the quote from Bernard Brodie given above indicates, deterrence, especially of nuclear conflicts, has become the primary function of our military forces in the nuclear age. A nuclear war could occur as the result of an infinite number of event sequences, both before and after other types of hostilities have commenced.<sup>2</sup> While the literature on this subject identifies and elaborates on several nuclear escalation scenarios, there are five basic paths that could lead to use of nuclear weapons on land or at sea:

- (1) Surprise Attack
- (2) Accident
- (3) Crisis Escalation
- (4) Escalation of a Conventional War
- (5) Terrorist Actions

Surprise attack, or "bolt from the blue," is of significant concern to military planners who are charged with insuring effective early warning and survivable forces both to deter and ride out sudden nuclear attacks. However, given the inherent survivability of sea-based strategic nuclear weapons and their large retaliatory capability, the surprise attack scenario is often discounted by strategic planners.

---

<sup>2</sup> Potential scenarios for nuclear escalation are developed in, among others: The Harvard Nuclear Study Group, Living With Nuclear Weapons, (Cambridge: Harvard University Press, 1983), pp. 49-66; David P. Barash, The Arms Race and Nuclear War, (New York: Wadsworth Publishing Co., 1987), pp. 66-177; Bernard Brodie, Escalation and the Nuclear Option, (Princeton: Princeton University Press, 1966); and Herman Kahn, On Escalation: Metaphors and Scenarios, (New York: Praeger, 1965).



Accidents involving nuclear weapon systems have occurred in the past, resulting in the establishment of a series of stringent measures to avoid, or mitigate their consequences. Improved superpower communication links also reduce the chances that a nuclear accident would be misconstrued by the other side as a precursor to a full-scale attack. For these and other reasons, nuclear war by accident, as with nuclear war by surprise attack, is also regarded as very unlikely.

Of the three potential pre-hostilities paths to nuclear war, including nuclear war at sea, crisis escalation is often considered to be the most likely.<sup>3</sup> In fact, Admiral James D. Watkins has observed that: "If war with the Soviets ever comes, it will probably result from a crisis that escalates out of control. Our ability to contain and control crises is an important factor in our ability to prevent global conflict."<sup>4</sup> This statement reflects a pervasive and implicit naval strategic planning assumption.

Shortly after the Cuban Missile Crisis in October 1962, Robert McNamara is reported to have observed: "Today there is no longer any such thing as military strategy; there is only crisis management." Two assumptions are implicit in this observation. First, McNamara believed nuclear weapons served only to deter war, not to fight them. He believed their only value lay in deterring the use of other nuclear weapons -- they could serve no useful military function in an actual conflict other than punitive retaliation. Second, if a war occurred, it would be a spasmodic exchange of massive nuclear firepower -- no strategy, per se, would be involved. Crisis management had replaced strategy as the planning criterion for the development, deployment, and operation of military (especially nuclear)

---

<sup>3</sup> It should be noted that use of nuclear weapons could also result from escalation during a conventional war. The scope of this report has been limited to pre-war contingencies, and so this fourth path to nuclear war will not be examined.

<sup>4</sup> Admiral James D. Watkins, USN, "The Maritime Strategy," Special Supplement, U.S. Naval Institute Proceedings, January 1986, p. 8.



forces. These assumptions layed the basis for current crisis management principles -- principles that will be critiqued below.

## B. Research Questions

If it is assumed that nuclear war at sea is most likely to occur as the result of crisis escalation, a number of questions concerning the role of nuclear weapons in crises arise, including the following:

- What role have naval nuclear weapons played in controlling or managing crises in the past?
- How does the involvement of naval nuclear assets in crises affect the nuclear threshold at sea and on land?
- In what ways might naval nuclear assets enhance or impede crisis management efforts?

There are also several policy-relevant questions. Assuming for a moment that sea-based strategic and tactical nuclear weapons could contribute to deterring crises from escalating to the use of nuclear weapons, what policies and force postures should the Navy consider in order to: (1) contribute to NCA crisis management objectives? (2) promote successful resolution of crisis situations? (3) prevent or deter escalation to nuclear war at sea and on land? (4) insure stable crisis de-escalation and termination? and, (5) in the event deterrence fails, achieve U.S. objectives by terminating a conflict on terms favorable to the United States?

This report undertakes to examine crises where nuclear weapons are present or where the use of strategic or tactical nuclear weapons may be an imminent possibility. The overall objective is to consider how the Navy might be prepared to deal with crises that either involve platforms with nuclear weapons

capabilities, or crises that threaten to escalate to tactical and/or strategic nuclear war at sea and on land.

### C. Nuclear Weapons and Crisis Management

#### 1. Nuclear Crisis Management: The Historical Experience.

The post-war crisis experience with strategic nuclear weapons has been examined by multiple sources. However, the role of tactical nuclear weapons in international crises has received surprisingly little, if any, attention. This report will, therefore, emphasize tactical nuclear forces.

One earlier examination of the U.S. crisis management experience is of particular interest to the subject of this report. A 1978 Brookings Institution study by Barry M. Blechman and Stephen S. Kaplan examined 215 "shows of force" in the post-war era.<sup>5</sup> They found 15 crises in which strategic nuclear forces were involved [see Table 1 below], together with major components of conventional forces. These were crises in which the U.S. actually altered the status of strategic nuclear forces as a direct consequence of the crisis in question. These cases constitute about seven percent of the total number of crises studied, and while this number may seem small in comparison to the total cases involved, three factors make them noteworthy.

First, strategic nuclear forces were involved. By virtue of that involvement, the nuclear threshold was incrementally lowered. The United States upgraded the alert status of strategic nuclear forces, or redeployed them in response to a crisis, signalling the seriousness with which the U.S. viewed the dangers to its interests in these situations, and the resolve of the U.S. government to protect its interests.

---

<sup>5</sup> Barry Blechman and Stephen Kaplan, Force Without War: U.S. Armed Forces as a Political Instrument, (Washington, D.C.: Brookings, 1978).

Second, the Soviet Union was an actor in 12 of the 15 incidents. In the context of post-war American foreign policy, it is exceptional when U.S. and Soviet forces confront each other directly in a crisis situation. It is more often the case that the superpowers confront each others' proxies.

Third, Blechman and Kaplan found that "the overall outcomes of the cases involving nuclear forces appear to have been favorable in nearly every one of these fifteen incidents in the short term, and in three-fourths of them over the longer term."<sup>6</sup>

TABLE 1  
CRISES INVOLVING U.S. STRATEGIC NUCLEAR FORCES,  
1946-1975

1. Security of Berlin, April 1948
2. Security of Berlin, June 1948
3. Korean War: Security of Europe, July 1950
4. Security of Japan/South Korea, August 1953
5. China-Taiwan Conflict: Tachen Islands, August 1954
6. Guatemala Accepts Soviet Bloc Support, May 1954
7. Suez Crisis, October 1956
8. Political Crisis in Lebanon, July 1958
9. Political Crisis in Jordan, July 1958
10. China-Taiwan Crisis: Quemoy and Matsu, July 1958
11. Security of Berlin, May 1959
12. Security of Berlin, June 1961
13. Soviet Emplacement of Missiles in Cuba, October 1962
14. Pueblo Seized by North Korea, January 1968
15. Arab-Israeli War, October 1973

Source: Barry Blechman and Stephen Kaplan, Force Without War: U.S. Armed Forces as a Political Instrument, (Washington, D.C.: Brookings, 1978), p. 100.

That is, the authors found that within six months of the initiation of the crises examined, virtually all the outcomes

<sup>6</sup> Ibid., pp. 99-100.



avored the United States, and that over the subsequent three years, three fourths of the outcomes remained favorable to the United States.

The authors found that there were three incidents where the Soviets were not successfully coerced over the longer (three year) term: "All the instances in which coercive objectives were not attained were related to the security of, and Western access to, Berlin, an issue that now appears to have been defused."<sup>7</sup>

Despite the high rate of success when nuclear forces were involved, a 1984 update of the Blechman and Kaplan study found that: "There were no political uses of strategic nuclear forces between 1975 and 1982 ... American policy makers have evidently lost faith in the political utility of strategic nuclear forces in any but the gravest crises."<sup>8</sup>

Why have U.S. policymakers apparently abandoned an instrument with such an astonishingly favorable track record? The first reason that comes to mind is that the strategic balance has shifted from one of significant American advantage to one of parity, or even Soviet superiority. In the study cited earlier, Blechman and Kaplan considered the possibility that a favorable strategic balance may have affected the positive outcomes of the crises they examined. They subsequently discounted its effect:

[A]lthough outcomes were less frequently positive when Moscow was most deeply involved, our data would not support a hypothesis that the strategic weapons balance influences the outcome of incidents in which both the United States and USSR are involved.<sup>9</sup>

Has the loss of American strategic superiority resulted in the declining political value of nuclear forces to the United States, or has some combination of other factors been

---

<sup>7</sup> Ibid., p. 101.

<sup>8</sup> Philip D. Zelikow, "Force Without War, 1975-82," Journal of Strategic Studies, vol. 7, no. 1 (March 1984), p. 35.

<sup>9</sup> Blechman, Kaplan, p. 129.

responsible? (e.g. detente, arms control, etc.) Does this mean that nuclear weapons will play no role (or should play no role) in future naval operations in times of peace or crisis? Can the Maritime Strategy afford to ignore the potential impact of nuclear weapons on crisis management, especially in view of the recent trend toward allied "nuclearitis" wherein traditional allies are reluctant to allow basing or port calls by U.S. naval vessels capable of carrying nuclear weapons? This becomes all the more important in light of the possibility that greater pressure will be placed on the Navy for forward basing of nuclear assets as allies face domestic resistance to nuclear cooperation with the United States, and the recently signed INF Treaty reduces the contributions of European land-based nuclear forces to deterrence.

2. Crisis Stability. Strategic stability -- a central objective of U.S. national security policy since 1945 -- is often defined as composed of two elements: arms race stability and crisis stability. Arms race stability refers to a condition where neither superpower has incentives for engaging in an action-reaction arms competition. Presumably, such incentives are avoided by mutual restraint in fielding weapons or defenses that threaten the other side's ability to assure retaliation. Crisis stability refers to a condition where there are no incentives for preemptively attacking the other side's forces in a crisis, or where capabilities and incentives exist for deescalating an impending crisis. Crisis stability is held to be a function of relatively invulnerable strategic forces. Colin Gray poses the issue as a question: "in a moment of acute crisis, would the strategic posture of the United States invite or discourage attack?"<sup>10</sup>

Yet, the calculus of crisis stability is subject to two interpretations, based on competing explanations of what causes crises to escalate into war. These competing explanations are

---

<sup>10</sup> Colin S. Gray, Strategic Studies and Public Policy, (Kentucky: University of Kentucky Press, 1982), p. 68.



often illustrated by reference to two alternative crisis analogies:

The 1914 Analogy. According to this view, although neither side intends nor desires it, war results from crises that escalate out of control. Escalation control is undermined by preset plans, little flexibility in either objectives or capabilities, failure to exhaust all diplomatic options, and complex alliance systems that convince leaders they will be backed up by allies if confronted by the threat of escalation. The solution offered by this view is to pursue limited objectives, enhance communication, and avoid provoking the opponent.

The Munich Analogy. According to this view, limited objectives reflected in policies of appeasement fuel the ambitions of expansionist powers. Crises that escalate into war are failures of resolute action, as well as failures to correctly discern the adversary's intentions. According to this view, the approach of the "1914 analogy" may lead to fewer and more drastic choices and the danger that appeasement may feed the expansionist ambitions of the opponent. This view alternatively proposes that crises be deterred or controlled by determined displays of resolution and force, backed by a willingness to fight, if necessary, for well-defined interests.

Current crisis management wisdom is most heavily based on the "1914 analogy." Its assumptions and implications are more specifically discussed in the paragraphs below.

3. Contemporary Principles of Crisis Management: A Critique. There is a vast literature on managing crises in the nuclear age. Much of it seeks to derive lessons from the Cuban missile crisis -- "the paradigmatic politico-military event of our age." Most of the suggested principles reflect the preeminence of the "1914 analogy," and urge limiting one's objectives in a crisis, keeping communications channels open, avoiding ultimatums, disregarding provocative actions, and employing force with flexibility and self-control. Gordon A. Craig and Alexander L. George have distilled seven basic

guidelines for crisis management from the relevant literature.<sup>11</sup> They conclude that, for a crisis to be successfully "managed" (read: ended without resort to war), both sides in a conflict must be willing and able to:

- (1) Maintain top-level civilian control of military options.
- (2) Create pauses in the tempo of military actions.
- (3) Coordinate diplomatic and military moves.
- (4) Confine military moves to those that constitute clear demonstrations of one's resolve and are appropriate to one's limited crisis objectives.
- (5) Avoid military moves that give the opponent the impression that one is about to resort to large-scale warfare and, therefore, force him to consider preemption.
- (6) Choose diplomatic-military options that signal a desire to negotiate rather than to seek a military solution.
- (7) Select diplomatic-military options that leave the opponent a way out of the crisis that is compatible with his fundamental interests.

While these seem like reasonable guidelines, there are some caveats to consider. First, as Craig and George note, both sides must adhere to these principles. Such cooperation cannot be guaranteed. Second, the post-Cuban missile crisis consensus on crisis management has been subjected to some recent criticisms. Eliot Cohen, for one, criticizes much of the crisis management

---

<sup>11</sup> Gordon A. Craig and Alexander L. George, Force and Statecraft: Diplomatic Problems of Our Time, (New York: Oxford University Press, 1983), pp. 206-207.

literature for its fixation with the Cuban missile crisis, which he considers "singularly unrepresentative of post-war crises," offering "precious little historical guidance for American statesmen today."<sup>12</sup> He asserts that five circumstances surrounding this crisis make it exceptional, rather than paradigmatic: "the real or imagined imminence of nuclear war, the condition of American military superiority in nuclear and conventional arms, the absence of the use of force, the directness of the clash between American and Soviet forces, and the brevity and simplicity of the event."<sup>13</sup> Yet, the author continues,

as of 1986, the threats, and hence the crises, we will face will not bring us close to nuclear war (unless the conditions of parity change radically), will occur under conditions of nuclear equality (or even slight inferiority) and dubious conventional strength, will involve the use of force, will in all likelihood involve us with Soviet clients rather than the Soviets themselves, and will, in all likelihood, be protracted and politically complicated. The Cuban missile crisis is and will remain singularly unrepresentative of post-war crises, and it offers precious little historical guidance for American statesmen today.<sup>14</sup>

Cohen further faults the traditional crisis management school of thought for making three dubious assumptions: (1) rejecting Clausewitz's notion that war is a political use of military strength (by discounting the primacy of the policies at odds in a crisis); (2) asserting that the threatened use of force serves only as a means of communicating with one's opponent; and (3) assuming that the fundamental interests of states do not conflict.<sup>15</sup>

---

<sup>12</sup> Eliot Cohen, "Why We Should Stop Studying the Cuban missile crisis." The National Interest. No. 2 (Winter 1985/86): 6.

<sup>13</sup> Ibid.

<sup>14</sup> Ibid.

<sup>15</sup> Ibid., pp. 10-11.



Cohen believes that the traditional crisis management school of thought reduces military strategy to "applied cognitive psychology," or "the art of non-verbal communication" by assuming that we have no real enemies, only misunderstood (or misunderstanding) neighbors.

Naval policy cannot operate under such assumptions. Conflicts may sometimes be the result of incompatible interests, and U.S. policymakers must be able to discern when such is the case. Furthermore, military force cannot be considered merely a means of communicating or "signaling" intentions, although such capabilities are critical to effective crisis management. Military forces must also be capable of achieving predetermined objectives (i.e. defeating enemy forces) should a crisis deteriorate into war. For these reasons U.S. Navy crisis management policy cannot rely solely on the traditional principles of crisis management, as they have been derived from the Cuban missile crisis.

4. Potential U.S. Objectives in Crisis Situations. The potential objectives of the American government in any given crisis situation will depend heavily on the circumstances involved.<sup>16</sup> U.S. interests in crisis management can run the full gamut of implicit and explicit, declared or understood, national security interests. Deterrence of imminent attack is, of course, the primary function of American military forces in peace or crisis, and the most important objective. This also includes improving, restoring, or enhancing the U.S. deterrence posture. There are other important U.S. objectives in crisis situations.

Restoring the status quo ante is often an important objective of U.S. crisis management operations. It may include the following types of actions: putting down a rebellion that threatens U.S. or allied interests; restoring a regime friendly to the U.S. or critical to other U.S. objectives; regaining

---

<sup>16</sup> The following discussion draws heavily on Leo A. Hazelwood, Executive Aids for Crisis Management: Interim Technical Report, (Arlington: CACI, Inc.-Federal, CAC-361A, April 1977), pp. 2-10, 11, E-1, 2.

## NAVAL NUCLEAR CRISIS MANAGEMENT

access to economic resources; restoring a condition of peace in the event of hostilities; restoring the territorial integrity of an ally; restoring a strategic, regional, or tactical military balance of power; or, reestablishing a condition of readiness on the part of U.S. forces.

Maintaining the status quo can also be an important objective of military forces in crisis situations. This may involve preserving fleet readiness; preserving peace; confirming or reestablishing American prestige; preserving territory; preserving a friendly regime from external threat; preserving, restoring, or improving an alliance relationship; protecting legal and political rights; inducing compliance with an existing foreign policy; dissuading a given country or other party from adopting or implementing a new policy; or, protecting a military asset.

Accepting the status quo is not always in the interests of the United States. It may be deemed necessary under some conditions to seek a change in the status quo. For example, the U.S. may wish to support a new government; induce a measure of national reorientation; induce another government to adopt a new policy less threatening to U.S., allied, or regional interests; or, bring about a change in regime.

American National Command Authorities [NCA] may wish to secure access to resources, allied territory, or other assets. Or, they may wish to deny access to other powers. These kinds of objectives will involve assuring continued economic access to materials, resources, and capital; preserving or regaining control of the sea or air; and denying control of the sea and air to hostile powers, including terrorists.

Other potential U.S. objectives in crisis situations include protecting human life, providing sanctuary or asylum to political refugees, supporting critical negotiations, discovering the intentions or actions of hostile powers, preparing for alternative missions, supporting various United Nations efforts, containing opponents, preventing the spread of hostilities, preserving lines of communication, regaining a lost technological advantage, restoring American prestige in a given region,



preserving a strategic, regional, or tactical balance of power; preventing or discouraging the proliferation of nuclear power; preventing or discouraging the proliferation of other military technology, such as ballistic missile weapons, land-based shipping attack missiles, or anti-aircraft batteries; or, in general preventing and discouraging the spread of communist influence.

TABLE 2  
SUMMARY OF POTENTIAL U.S. CRISIS OBJECTIVES

- (1) DETERRENCE
- (2) RESTORE STATUS QUO ANTE
- (3) MAINTAIN STATUS QUO
- (4) CHANGE STATUS QUO
- (5) ACCESS OR DENIAL OBJECTIVES
- (6) OTHER OBJECTIVES

Source: Leo A. Hazelwood, Executive Aids for Crisis Management: Interim Technical Report, Arlington: CACI, CAC-361A, April 1977.

Of course, the choice of objectives will always be the prerogative of the National Command Authorities. The options provided by Navy capabilities and procedures may, however, restrict the range of choices available. It should be Navy policy to provide the widest scope of responses possible.

Navy contingency plans should anticipate major categories of crisis objectives, and be prepared to deal effectively and

efficiently with them. In particular, the Navy should consider the impact of nuclear weapons on the choice of crisis objectives and on the implementation of crisis contingency plans.

TABLE 3  
TYPES OF U.S. CRISIS ACTIONS

1. COMMITMENT TO COMBAT OPERATIONS
2. COMMITMENT OF SUPPORTING FORCES
3. REPOSITIONING FOR COMBAT CONTINGENCY
4. FORCES EMPLOYED AS A DETERRENT
5. MILITARY OPERATIONS
6. MILITARY ASSISTANCE
7. OTHER MILITARY ACTIONS
8. INTERNATIONAL PARTICIPATION IN THE CRISIS

Source: Ibid., pp. 3-3,4.

To be sure, any value that nuclear weapons may have in aiding the achievement of these objectives must derive from their "presence," rather than their actual use. However, it should be noted that the term "presence" should refer to perceptions of the capabilities of the weapons themselves, and not merely their physical deployment to a crisis location. It is primarily from the capability of nuclear weapons to fulfill warfighting

objectives or punitive threats that their crisis management value is derived.

Maritime tactical nuclear weapons most likely to be involved in crisis situations have in the past had as wartime objectives: (a) anti-submarine warfare; (b) anti-air warfare; (c) anti-ship warfare; and (d) land-attack missions.<sup>17</sup> This array of capability poses a deterrent to escalation on the part of enemy submarines, aircraft, ships, and shore-based military forces. In a crisis, these naval tactical nuclear weapons missions should provide the Navy with the assets for both controlling the crisis, and implementing an effective flexible response should deterrence fail.

## II. CRISIS MANAGEMENT AND THE MARITIME STRATEGY

### A. The Navy's Role in Crisis Management

U.S. national security policy requires the Navy to be prepared for operations in three different environments: peacetime, crisis, and war. Both NCA and CNO policy directives acknowledge the importance of naval forces for the conduct of foreign policy in peacetime, the management and resolution of conflicts in times of crisis, and the prosecution of military objectives in time of war.

In times of crisis, the service of choice is the U.S. Navy. In fact, the Navy has been the preeminent military force in most discrete political operations undertaken by the United States since 1945. Naval forces participated in more than 80 percent of the incidents covered in the 1978 Brookings Institution study of

---

<sup>17</sup> Naval tactical nuclear missions such as anti-air and anti-ship are gradually being replaced by conventional weapons. In the future it is likely that tactical nuclear weapons at sea will serve only in land attack, or possibly ASW, roles.

the political uses of military force cited earlier; and reliance on the Navy was the case regardless of region, time period, type of situation, and whether or not the Soviet Union participated in the incident.<sup>18</sup>

Naval forces possess a number of diplomatic advantages over the forces of other services. These advantages include, among others: (1) flexibility; (2) controllability; (3) strategic mobility; (4) combat effectiveness, and (5) visibility.<sup>19</sup> Modern naval forces possess a wide range of capabilities and a diversity of options for responding to most contingencies that may arise. Often, a single platform will possess the capability for many operational tasks. Naval forces can also be diverted, deployed, or withdrawn rapidly from far-flung areas of the globe -- contributing to their controllability. Their strategic mobility is an often undervalued asset contributing to their ability to achieve surprise for diplomatic or strategic reasons, and to their ability to survive in war. Moreover, modern American naval forces have an unprecedented degree of firepower and strike warfare capability. Admiral Watkins further identifies the crisis response advantages of naval forces as follows:<sup>20</sup>

- forward deployment
- consistently high states of readiness
- frequent exercises with allied forces
- indefinite sustainability at distant locations
- diverse capabilities
- escalation control characteristics

---

<sup>18</sup> Blechman and Kaplan, p. 529.

<sup>19</sup> Geoffrey Till, Modern Seapower: An Introduction, (London: Brassey's, 1987), pp. 167-172.

<sup>20</sup> Watkins, "The Maritime Strategy," p. 8.



Because of these capabilities and features, the United States will continue to rely on naval forces for important crisis operations in the future, and the Navy has acknowledged this responsibility by shaping a strategy to deal with it.

#### B. Crisis Management and the Maritime Strategy

The Navy's Maritime Strategy applies to the entire spectrum of conflict -- in peace, crisis, or war. In a major statement on the Maritime Strategy, Admiral James D. Watkins observed:

Sea power is relevant across the spectrum of conflict, from routine operations in peacetime to the provision of the most survivable component of our forces for deterring strategic nuclear war. The Maritime Strategy provides a framework for considering all uses of maritime power. Among the greatest services we can provide the nation is to operate in peacetime and in crises in a way that will deter war.<sup>21</sup> [emphasis added]

Admiral Watkins further stated that "The heart of our evolving Maritime Strategy is crisis response... It is a global strategy designed to meet a global and diverse threat, embracing all possible theaters of operation and their complex interrelationships, in peace, in crisis, or war."<sup>22</sup> [emphasis added]

It is clear that the Maritime Strategy and its formulators recognize the importance of crises as potential transitions to full-scale war, and direct that Navy planning take this into account. Crisis management is, therefore, among the Navy's most important functions.

The Maritime Strategy speaks of the spectrum of conflict in terms of phases. Phase I is labelled in Navy presentations as "deterrence or transition to war." The objectives of this pre-war phase are to "win the crisis, to control the escalation, to

---

<sup>21</sup> Ibid., pp. 7-8.

<sup>22</sup> Ibid., pp. 8, 15.



cede no vital area by default, and to prepare for global war."<sup>23</sup> Speed and decisiveness of response are further recognized as essential to the successful deterrence of war in this phase of conflict. Other tasks of this phase may include: forward positioning of forces, commencing strategic sealift operations, avoiding maldeployment, increasing readiness and alert status, husbanding resources, and maximizing warning time.<sup>24</sup> The Navy foresees promoting deterrence during this phase by "moving into position so that forces can be optimized in the event escalation control fails and we must face combat."<sup>25</sup>

Navy statements on objectives during Phase I of the Maritime Strategy recognize that actions must display decisiveness while avoiding provocation. It is in this connection that nuclear weapons may seriously impede or enhance the Navy's ability to perform a crisis management role function. They may also complicate both the Navy's ability to contribute to deterrence during peacetime, and to successful war-termination should deterrence (and crisis management) fail. The next section of this report examines issues associated with nuclear crisis management, including identification of maritime nuclear assets most likely to be involved in a crisis, recent crises where naval nuclear weapons may have been present, and the results of a survey of the literature on naval crisis response.

---

<sup>23</sup> U.S. House of Representatives, Committee on Armed Services, The 600-Ship Navy and the Maritime Strategy, Hearings before the Seapower and Strategic and Critical Materials Subcommittee, 99th Congress, First Session, June 24, Sept. 5, 6, and 10, 1985, p. 38.

<sup>24</sup> Ibid.

<sup>25</sup> Ibid., p. 39.

### III. NUCLEAR CRISIS MANAGEMENT AT SEA

#### A. Introductory Remarks

The foregoing sections of this report have sought to establish: (1) that escalation of a severe crisis may be considered the most likely way a nuclear war would start; (2) that strategic nuclear weapons have played a critical role in crises in the past, and may again in the future; and, (3) that the Navy has an important crisis management role -- a role that could either be enhanced or complicated by sea-based nuclear weapons.

The following discussion seeks to make three additional points. First, naval tactical nuclear assets are widely dispersed throughout the fleet. This gives the Navy tremendous operational flexibility to respond to a variety of both peacetime and wartime contingencies. It also poses certain challenges to Navy crisis management efforts. Second, a review of recent crises involving Navy forces seems to indicate that, more often than not, the Navy carries an inherent tactical nuclear capability into crisis situations, whether desired or not. Third, despite the importance of the Navy to U.S. crisis management efforts, and despite the ubiquity of naval nuclear-capable assets, very little attention has been paid to the role and implications of naval nuclear weapons in crisis situations.

#### B. Navy Nuclear Assets

In order to be prepared to deal effectively with a wide range of contingencies, the U.S. Navy has developed a broad variety of nuclear weapons and deployed them throughout the fleet:

The U.S. Navy maintains 9,347 nuclear weapons for 275 ships and submarines, and over 1,300 nuclear-capable naval aircraft. SLBMs carry 5,632 strategic warheads, with perhaps 450 more in the stockpile... Some 25 classes of

surface and subsurface combat vessels are nuclear capable,<sup>26</sup> as are the support and logistics ships that carry weapons.

The following tables are derived from several unclassified sources and while the information is incomplete and may not be accurate in all respects, it is intended to indicate the diversity and dispersal of nuclear weapons deployed on sea-based platforms as they may be perceived by potential adversaries. Table 4 is a summary of the numbers of U.S. Navy nuclear-capable vessels. Table 5 is derived from several unclassified sources and is a summary of maritime tactical nuclear weapons forces, their numbers and launch platforms. Table 6 is a summary of U.S. and Soviet naval tactical nuclear force loadings. It should be noted that force loadings are in constant flux and the numbers given are crude approximations.

TABLE 4  
U.S. NAVY NUCLEAR-CAPABLE LAUNCH PLATFORMS

Strategic Submarines	36
Aircraft Carriers	13
Cruisers/Destroyers	102
Attack Submarines	85
Marine Divisions	4
Marine Air-Wings	4
Frigates	61

---

<sup>26</sup> Richard Fieldhouse, "Nuclear Weapons at Sea," Bulletin of the Atomic Scientists, 43, 7 (Sept. 1987), p. 21.



# NAVAL NUCLEAR CRISIS MANAGEMENT

TABLE 5  
SEA-BASED TACTICAL NUCLEAR WEAPONS

<u>WEAPON</u>	<u>WARHEAD</u>	<u>IOC</u>	<u>LAUNCH PLATFORM</u>	<u>NO.</u>
	B-43-1	1961	A-6E, s A-7E	500?
	B-57	1963	P-3, S-3, SH-3, F/A-18	1000
	B-61	1963	A-6E, A-7E, F/A-18	500?
ASROC	W-44	1961	CG/CGN, DDG, FF/FFG	850
TERRIER	W-45	1962	CG/CGN, DDG, CV	300
SUBROC	W-55	1964	SSN	400
(ADM)	B-54	-na-	Marine Division	-na-
(ADM)	W-45	1962	Marine Division	310
TOMAHAWK	W-80-0	1984	BBG, CG/CGN, DDG, SSN	164
STANDARD- SM-2 (N)	W-81	1988	CG/CGN, DD	350

Sources: DoD, Soviet Military Power, 1987; International Institute for Strategic Studies, The Military Balance, 1986-1987, (London, 1985); Thomas B. Cochran, et al, Nuclear Weapons Databook, Vol. I: U.S. Nuclear Forces and Capabilities, (Cambridge: Ballinger, 1984), p. 244; and Ball, "Nuclear War at Sea," p. 24.

With such dispersed nuclear capability, any substantial group of forces the Navy deploys to or near a crisis situation is likely to have some inherent nuclear-delivery capability. The deployment of naval platforms with nuclear-delivery capability could critically affect the dynamics of the crisis situation in a



number of ways. For example, perceptions of the stakes involved could be raised by the presence of U.S. tactical nuclear forces; and, these forces could significantly alter the actual military capabilities of the forces involved, thus improving escalation control by complicating the adversaries calculations of success and failure.

TABLE 6  
U.S. AND SOVIET NAVY  
TACTICAL NUCLEAR FORCE LOADINGS: SUMMARY

	<u>U.S.</u>	<u>SOVIET</u>
CRUISE MISSILES	125	788
AIRCRAFT BOMBS	1,530	0*
ASW WEAPONS	1,760	1,278
ANTI-AIR WEAPONS	300	260
NAVAL ARTILLERY	0	100
COASTAL MISSILES	0	100
SUBTOTAL	<u>3,715</u>	<u>2,560</u>

Source: Bulletin of the Atomic Scientists, Vol. 43, No. 7 (Sept. 1987): 63.

\* According to the latest edition of The Military Balance, this figure may ignore as many as 600 Soviet nuclear bombs on Backfire bombers assigned to Long-Range Naval Aviation. Air-launched cruise missiles on Backfire and Badger bombers are almost certainly excluded from this count as well.

Whatever the impact of U.S. nuclear weapons in crisis situations, it is apparent that they will likely be involved in almost any contingency involving Navy forces. The following section reviews recent crises involving Navy vessels with inherent tactical nuclear capability.

C. The Implications of Naval Nuclear Weapons in Crises: Literature Survey

As part of the research effort for this study a thorough review of the literature on crisis management and nuclear weapons was undertaken, with particular attention to the role of naval forces in crisis situations. It was found that:

1) Major studies of Navy crisis management operations neglect the nuclear dimension. Little attention has been paid to the role and implications of naval nuclear weapons and nuclear-capable platforms in crises, especially tactical nuclear weapons. Although thorough studies exist on the employment of naval forces in peace, crisis, and war, almost no mention is made of the presence or impact of nuclear weapons or of nuclear-capable ships. This is despite the fact that naval nuclear weapons assets have been present in numerous crisis situations, either by choice or inadvertently. These earlier studies include:

- Naval Studies Board, Some Naval Issues and Options in Crisis Management, 1977.
- CNA, U.S. Navy Responses to International Incidents and Crises, 1955-1975, 1977.
- CNA, Planning for the U.S. Navy's Role in Peacetime, Crisis, and Limited Conflict, 1980.
- CNA, U.S. Naval Responses to International Incidents and Crises, 1976-1984, 1985.

## NAVAL NUCLEAR CRISIS MANAGEMENT

2) Official naval planning activities and staffing are, with much justification, almost exclusively preoccupied with naval forces and missions in time of war.

3) An exception to the apparent inattentiveness of the literature to naval nuclear weapons in crisis situations involves those studies that examine the crisis employment of U.S. strategic nuclear forces in general, both Air Force and Navy. These studies find a significant correlation between the presence of U.S. strategic nuclear forces in crises and the positive resolution of these crises, as noted earlier in this report.<sup>28</sup>

### IV. ISSUES ASSOCIATED WITH NUCLEAR CRISIS MANAGEMENT AT SEA

#### A. Introductory Remarks

Ever since the Navy acquired a nuclear delivery capability in the 1950s there has been considerable debate on many issues related to nuclear weapons and naval forces. Among others, these issues include:<sup>29</sup>

- accidents involving sea-based nuclear weapons
- attractiveness of ships as nuclear targets
- launch autonomy of naval commanders

---

<sup>28</sup> Blechman and Kaplan, cited in Section I of this report.

<sup>29</sup> See Desmond Ball, "Nuclear War at Sea," International Security, 10 (Winter 1985-86): 3-31. This article, from which this list is derived, is representative of the non-Navy literature on these issues.

- problems and opportunities associated with dual-capable systems
- implications of the U.S. Navy's doctrine for offensive operations in forward areas
- U.S. Navy doctrine for employment of tactical nuclear weapons

Most, if not all of these issues have implications for Naval nuclear crisis management. Additionally, there are other issues of concern: (1) is it wise to assume that any U.S.-Soviet confrontation is a potentially nuclear crisis? (2) To what extent might crises serve as distractions for preemption or surprise attack? and, (3) Are forward-deployed U.S. Navy tactical/strategic nuclear assets vulnerable to surprise attack in the midst of a crisis situation?

B. Issues Associated with Nuclear  
Crisis Management At Sea

1. Accidents Involving Sea-based Nuclear Weapons. Accidents involving sea-based nuclear weapons could include: a) accidental or unauthorized launching, firing or detonation; b) non-nuclear detonation or burning of a nuclear weapon; c) inadvertant radioactive contamination; d) seizure, theft, or loss of nuclear weapons or weapon components, or e) damage or loss through



inadvertant attack.<sup>30</sup>

Because of a long-standing concern with inadvertant nuclear war occurring due to the accidental detonation of a nuclear device, the United States has established procedures and mechanisms for guarding against this contingency. The chances of an accident triggering a nuclear war at sea are very low. These chances may be increased, however, by the proliferation of nuclear weapons capability, either among a greater number of platforms, or among a greater number of countries with nuclear weapon ambitions.

The chances of a nuclear accident triggering an inadvertant nuclear war at sea may also be increased due to rising tensions or the potential predelegation of launch authority occur during a crisis. In fact, it may be reasonable to assume that a nuclear accident has the greatest likelihood of resulting in a nuclear war at sea if it occurs during a crisis. Therefore, safeguards established for preventing accidents should be even more stringent in crisis situations.

At least one author surveyed discounted the escalatory nature of accidents at sea:

A confrontation at sea is less sensitive, and less prone to accidental escalation, than a confrontation on land. For these reasons, the use of naval forces is usually regarded as less provocative, less dangerous and more controllable than that of their equivalents in the other services.<sup>31</sup>

---

<sup>30</sup> See, among others, Milton Leitenberg, "Accidents of Nuclear Weapons Systems," in Stockholm International Peace Research Institute, World Armaments and Disarmament, Sipri Yearbook 1977, (Cambridge: The MIT Press, 1977), pp. 52-82; Daniel Frei, Risks of Unintentional Nuclear War, (New Jersey: Allanheld, Osmun, 1983), pp. 155-166; and, Paul Bracken, "Accidental Nuclear War," in Graham T. Allison, Albert Carnesale, and Joseph S. Nye, Jr., eds., Hawks, Doves, and Owls: An Agenda for Avoiding Nuclear War, (New York: Norton, 1985), pp. 25-53.

<sup>31</sup> Till, Modern Seapower, p. 169. It should be further noted that determining what happened in an accident or confrontation at sea may be difficult or impossible to determine.

Two U.S.-Soviet agreements also reduce the risks of an accident at sea (whether or not nuclear weapons are involved) from escalating out of control: the "Agreement on Measures to Reduce the Risk of Outbreak of Nuclear War Between the USA and the USSR," (1971) and the "Agreement Between the Government of the United States of America and the Government of the Union of Socialist Republics on the Prevention of Incidents on and over the High Seas," (25 May 1972). These agreements establish "rules of the road," and require that in the event of inadvertant nuclear incidents the parties act "in such a manner as to reduce the possibility of its actions being misunderstood by the other Party."<sup>32</sup>

For these reasons, accidents involving nuclear weapons at sea have a very low risk of escalating to nuclear war.

2. The Attractiveness of Ships as Nuclear Targets. There is a popular argument that ships pose lucrative targets for nuclear strikes, and that limited nuclear attacks on ships at sea would constitute something short of a firebreak that the U.S. would be unwilling to cross. "The destruction of large naval assets would disproportionately disadvantage the United States, both because of the enormous U.S. investment in its carrier forces and because of the greater U.S. dependence on sea lines of communication."<sup>33</sup> There are several mitigating considerations to these arguments.

First, it is reportedly official U.S. policy to discourage the idea that a nuclear war beginning with nuclear attacks at sea would remain limited to the sea.<sup>34</sup> This suggests that U.S. planners reject the notion that a nuclear firebreak exists with regard to sea-based forces and attacks on those forces.

---

<sup>32</sup> Cited in Desmond Ball, "Nuclear War at Sea," International Security, 10, 3 (Winter 1985-86), p. 7.

<sup>33</sup> Ibid., p. 9.

<sup>34</sup> Ibid., p. 10.

Second, it is precisely because the U.S. attaches such great significance to sea lines of communication that an attack on them would be deliberately and provocatively escalatory. This point is certainly not lost on America's potential adversaries.

Third, before ships at sea can be attacked with nuclear weapons, they must be located. One of the cardinal virtues of naval forces is their mobility. That mobility enhances their survival in much the same way mobile basing of ICBMs is said to enhance their survivability.

Of course, the maldeployment of naval forces may erode crisis stability and increase the attractiveness of ships as nuclear targets. This is a consideration easily taken into account in naval exercises and fleet doctrine.

3. Launch Autonomy of Naval Commanders. Ironically, the launch autonomy of naval commanders may enhance crisis stability by precluding a "decapitation" strike severing links to U.S. nuclear retaliatory forces. The problem often identified in the literature is with the possibility unauthorized launch. This possibility is reduced by thorough personnel selection and training procedures, by a strict requirement for positive launch authentication, and by a "multiple-key" system of launching maritime nuclear weapons systems. These points are likely to be most severely tested in crisis situations, however, and should be accounted for in naval exercises and fleet doctrine.

4. Dual-Capable Systems. Dual-capable systems -- those with both conventional and nuclear warhead options -- have posed a number of arms control and force employment dilemmas. They may complicate or enhance crisis management efforts in a number of ways.

First, by confusing the adversary about the actual composition of the deployed U.S. naval forces, dual-capable systems may introduce uncertainty in his calculations of U.S.



intentions and capabilities, thereby enhancing escalation control.

Second, an adversary may be forced to assume that deployed U.S. naval forces are nuclear armed, when in fact they are not. This may increase the tensions involved, and it may needlessly push an adversary into contemplating or undertaking unnecessarily escalatory steps. On the other hand, an adversary may overestimate the firepower he faces in U.S. Navy forces, and he may exaggerate the U.S. perception of the stakes involved, and yield on points he may otherwise have not conceded.

Third, nuclear-armed dual-capable systems may displace or reduce the stocks of more useable conventional warheads, thus taking up valuable space on a finite number of Navy platforms involved in crisis operations.

5. Implications of the U.S. Navy's Doctrine for Offensive Operations in Forward Areas. In time of war it is U.S. Navy policy to seek out and destroy enemy naval forces "as far forward as possible." This is the essence of the Maritime Strategy. The criticism this emphasis has engendered revolves primarily around the escalatory dynamics of targeting Soviet SSBNs early in a U.S.-Soviet war. The criticism has been expressed as follows:

This strategy contains the seeds of extremely rapid escalation. It is not just that it puts Soviet SSBNs at risk and hence could cause inadvertent escalation. Such a strategy also makes it difficult for National Command Authorities to forgo preemption. Being quite familiar with the U.S. Navy's strategic predilections, the Soviet NCA would have to move to disperse the Backfire force and to "surge" the SSBNs at the outset of any conflict. This would, in turn, put the U.S. NCA under strong pressure to preempt.<sup>35</sup>

---

<sup>35</sup> Desmond Ball, "Nuclear War at Sea," International Security, 10, 3 (Winter 1985-86), p. 23. For another discussion of this issue, see: James J. Tritten, Withholding & Attacking SSBNs. Monterey: Naval Postgraduate School, NPS-56-88-004, Feb. 1988.



The assumption that the U.S. is initiating -- and not responding -- to aggression appears to underly the above reasoning -- a dubious assumption at best.

The implications for crisis control of the Navy's doctrinal and operational emphasis on offensive operations in forward areas are not clear. On the one hand, forward deployed forces are mandated by the far-flung national interests of the United States, and forward deployment could deny the enemy important advantages in the event deterrence failed. On the other hand, forward deployed forces may risk inadvertently causing or exacerbating crisis situations. The potential for crises worsening due to the engagement of forward deployed forces could be mitigated by the U.S.-Soviet agreements referred to above establishing "rules of the road," and procedures for consultations, and by clear delineations of U.S. policy objectives in given crisis situations.

6. U.S. Navy Doctrine for Employment of Tactical Nuclear Weapons. A frequent criticism is that the Navy has paid insufficient attention to the development of coherent strategies and policies for the employment of maritime tactical nuclear weapons.<sup>36</sup> This criticism may have been alleviated somewhat by a number of articles by Capt. Linton Brooks and others appearing in U.S. Naval Institute Proceedings.<sup>37</sup> The Navy does have well-developed operational concepts for the employment of its nuclear weapons, as do the other services. For operational security reasons, the Navy, of course, is not in the habit of advertising the specifics of its nuclear employment policies.

---

<sup>36</sup> Ball, "Nuclear War at Sea," pp. 23-26. See also: Joseph D. Douglass, Jr., and Amoretta M. Hoeber, "The Role of the U.S. Surface Navy in Nuclear War," U.S. Naval Institute Proceedings, 108, 1 (January 1982), p. 58.

<sup>37</sup> See, for example: Captain Linton F. Brooks, "Tactical Nuclear Weapons: The Forgotten Facet of Naval Warfare," U.S. Naval Institute Proceedings, 106, 1 (Jan. 1980): 28-33; and, Idem., "The Nuclear Maritime Strategy," U.S. Naval Institute Proceedings, 113, 4 (April 1987): 33-40.

There does exist a need, however, for defining the role of maritime nuclear forces in crisis situations. The Implications section of this report will seek to address this apparent shortcoming.

7. Other Issues. Is it wise to assume that any U.S.-Soviet confrontation is a potentially nuclear crisis? A naval analyst has recently observed that "all wars between superpowers are nuclear; but in some, the nuclear weapons have not yet been used."<sup>38</sup> The same may be said of superpower crises. For planning purposes, it must be assumed that if the Soviets have equipped their naval forces for nuclear combat, and if that is reflected in their training and doctrine, the U.S. Navy must be prepared to deter, and if necessary, defeat, such capabilities.

To what extent might crises serve as distractions for preemption or surprise attack? There are several points for consideration here. First, the heightened readiness and alert status of forces in a crisis mean those forces are less susceptible to preemption by surprise attack. Second, crises call attention to an adversary's actions. Intelligence collection activities are stepped up, and wariness increases. These are not ideal conditions for attempting to achieve surprise against an alerted foe. On the other hand, by virtue of their affect in focusing superpower attention on specific regions or issues, crises may be used to divert attention away from an adversary's preparations for surprise in another theater of conflict.

Are forward-deployed U.S. Navy tactical/strategic nuclear assets vulnerable to surprise attack in the midst of a crisis situation? In calculating the costs and benefits of a surprise attack, a potential opponent must weigh many considerations. The transient or localized vulnerability of U.S. Navy nuclear assets diverted to a crisis may be offset by the unquestioned survivability of other retaliatory forces elsewhere. Nevertheless, the essence of crisis stability lies in reducing incentives for escalation in situations of increased tension. By

---

<sup>38</sup> James J. Tritten, "(Non)Nuclear Warfare," U.S. Naval Institute Proceedings, 113, 2 (Feb. 1987), p. 70.

presenting targets of opportunity, maldeployed Navy nuclear capabilities may raise an adversary's calculations of benefits to be derived from preemption. Navy training and fleet doctrine should address such contingencies.

## V. THE SOVIET THREAT TO NUCLEAR CRISIS MANAGEMENT AT SEA

### A. Introductory Remarks

The United States may face a crisis that threatens to become nuclear in character due to the actions of another party and not by its own initiative. The Soviet Union is America's principal nuclear-armed adversary. Furthermore, crises that become nuclear in character are likely to do so because of Soviet complicity. The Soviet Union may interpose its maritime nuclear forces between the U.S. and a third party, or it may offer a "nuclear umbrella" to non-nuclear allies who feel threatened by American nuclear forces in a crisis.

Because the Soviet Union is the principal nuclear threat, this section will address some of the issues related to the Soviet crisis management approach and experience.

### B. The Soviet Nuclear Crisis Record

The Soviets have apparently made much less use of nuclear "gunboat diplomacy" than has the United States. This may be attributable to greater caution with respect to nuclear matters, but it probably is more a reflection of the Soviet's land power orientation. Stephen Kaplan reports only a single incidence of Soviet nuclear posturing for crisis response purposes:

On many occasions, but particularly during the Khrushchev era, Soviet leaders verbally raised the prospect



of using nuclear weapons against foreign nations. Yet in only one instance were data found confirming that the USSR had actually raised the alert status of forces presumably included in plans for nuclear attack upon the United States, Europe,<sup>39</sup> or China. That incident was the Cuban missile crisis.

However, it should be noted that in a major study on Soviet risk-taking and crisis behavior, another author has observed: "Soviet behavior in the Cuban missile crisis appears in retrospect as one major exception to traditional (and subsequent) patterns of Soviet risk-taking, rather than as a confirmation of such patterns."<sup>40</sup> [emphasis in original]

There is another documented instance of Soviet leaders "raising the nuclear specter," (although there is no evidence that actual movement of nuclear forces was involved) and that relates to border clashes with China in the late 1960s and early 1970s. Henry Kissinger reports that the Soviets quietly approached U.S. diplomats and "asked what the US reaction would be to a Soviet attack on Chinese nuclear facilities."<sup>41</sup> The U.S. vigorously discouraged such an initiative and Kissinger directed that the U.S. draw up contingency plans for a Soviet attack on China. The Soviets did not bring up the issue again, and no attack occurred.

Whether he is referring to this incident or another is not clear, but Stephen Kaplan notes at least one Soviet nuclear blackmail success: "In the one instance when the USSR raised the specter of nuclear war, China quickly compromised its position

---

<sup>39</sup> Stephen S. Kaplan, Diplomacy of Power: Soviet Armed Forces as a Political Instrument, (Washington, D.C.: Brookings, 1981), p. 54.

<sup>40</sup> Hannes Adomeit, Soviet Risk-Taking and Crisis Behavior: A Theoretical and Empirical Analysis, (London: George Allen & Unwin, 1982), p. 315.

<sup>41</sup> Henry A. Kissinger, White House Years, (Boston: Little, Brown, 1979), p. 183.



and sought negotiations with Moscow."<sup>42</sup> Kaplan draws the following conclusion from this observation:

[T]he practice of nuclear diplomacy by the Soviet Union might be particularly effective against actors over whom the Kremlin holds a position of massive nuclear superiority and when the issues are substantial enough to justify this level of threat. On the other hand, the longer-term outcome of Moscow's nuclear threat against China and the reinforcement of Soviet conventional forces in the Far East -- implying Soviet preparedness for tactical nuclear war -- drove Peking into a larger nuclear weapons program of its own and to improved relations with the West. NATO and Japan also became seriously alarmed.<sup>43</sup>

### C. Soviet Views of the Military and Political Value of Nuclear Weapons

To better understand how the Soviets may react to nuclear crises, it may be useful to review Soviet views of the military and political value of nuclear weapons. The Soviets see nuclear weapons as serving several critical purposes.<sup>44</sup> First, they serve to deter attack on the USSR and its allies. In the Soviet view, deterrence is primarily a function of the relative warfighting effectiveness of the forces of given opposing nations as measured by the so-called "correlation of forces." Nuclear weapons have been considered the most important category of measurement within this comparison. Second, the Soviets perceive their nuclear forces as deterring U.S. 'aggressions' and initiatives against Soviet allies, Third World countries, and others. In this connection, Soviet nuclear forces have a clear and well-defined role in the so-called "external function of the Soviet armed forces," which is a Soviet phrase referring to

---

<sup>42</sup> Kaplan, Diplomacy of Power, p. 669.

<sup>43</sup> Ibid., pp. 669-70.

<sup>44</sup> The following discussion draws on, among others: William C. Green, Soviet Nuclear Weapons Policy: A Research and Bibliographic Guide, (Boulder: Westview Press, 1987); and, Leon Goure, Foy D. Kohler, and Mose L. Harvey, The Role of Nuclear Forces in Current Soviet Strategy, (University of Miami: Center for Advanced International Studies, 1974), pp. 5-10.

foreign uses of the Soviet armed forces. Third, Soviet nuclear forces are seen as symbols of equal superpower status with the United States. Fourth, they are the primary component of the "world correlation of forces," and as such, they represent the most important measure of the relative strengths of the socialist and capitalist systems.

Soviet doctrine and military posture do not distinguish between deterrence and war-fighting nuclear capabilities, but appear to view them as 'fused together' in dialectical unity. The better the Soviet armed forces are prepared to fight and win a nuclear war, the more effective they will also be as a deterrent to an attack on the Soviet Union; at the same time, the ability of Soviet forces to fight and win a nuclear war provides indispensable insurance against the failure of deterrence.<sup>45</sup>

Soviet strategic nuclear forces are expected to fulfill the following missions:<sup>46</sup>

- o 'reliably defend the socialist Motherland' and deter attack upon the Soviet Union or its allies;
- o in the event of any enemy preparing an attack on the USSR or its allies, to 'frustrate' the initiation of the attack and assure the 'decisive defeat' of the enemy;
- o support Soviet foreign policy objectives by forcing the West to deal with the Soviet Union from a position of 'realism' rather than 'strength' and reducing the risks of a dangerous Western reaction to Soviet gains
- o deter the West from 'exporting counter-revolution' and otherwise to stand as an effective obstacle to 'imperialist aggression' in the Third World; and,
- o support 'national liberation' struggles and defend 'all peace loving peoples' throughout the world.

---

<sup>45</sup> Goure, The Role of Nuclear Forces in Current Soviet Strategy, p. 8.

<sup>46</sup> Ibid., pp. 12-13.

It is clear that the Soviets see military and political benefits deriving from their nuclear forces. Further, the Soviets seem to believe that the overall "correlation of forces" is inevitably shifting in their favor, and as it does, U.S. flexibility in responding to crises or other contingencies is decreasing proportionally -- including the U.S. propensity to resort to "nuclear diplomacy". Nuclear weapons will be indispensable to Soviet foreign and defense policy objectives as long as capitalist states possess them.

#### D. Soviet Views of Crisis Escalation as a Path to Nuclear War

Throughout the 1950s and 1960s, surprise attack was the key scenario against which the adequacy of Soviet forces was evaluated, and to which their doctrines and strategies were addressed. As the Soviets developed a mature and substantial survivable retaliatory capability in the late 1960s, that concern was replaced by the crisis escalation scenario:

Today, it appears that the broad sweep of Soviet force planning is guided by the belief that a nuclear war between the United States and the Soviet Union would most likely occur in the context of some crisis or conflict rather than arise spontaneously [i.e. as a "bolt from the blue"].<sup>47</sup>

The possibility of nuclear escalation occurring as the result of a superpower crisis "is one of the primary doctrinal contingencies in Soviet force posture planning."<sup>48</sup> Detente, in the Soviet view, does not eliminate the inevitability of continued ideological struggle between the two systems, or of that struggle to generate occasional localized periods of

---

<sup>47</sup> Stephen M. Meyer, "Soviet Perspectives on the Paths to Nuclear War," in Graham T. Allison, Albert Carnesale, and Joseph S. Nye, Jr., eds., Hawks, Doves, and Owls: An Agenda for Avoiding Nuclear War, (New York: Norton, 1985), p. 178.

<sup>48</sup> Ibid.



heightened tensions as the declining capitalist system reacts to the unfavorable shift in the "correlation of forces" toward Soviet moral, political, and military superiority.

As long as capitalist states armed with nuclear weapons exist, the possibility of nuclear war exists. Therefore the requirement for continued readiness to respond decisively to such a contingency will exist. By definition, it is the "reactionary" nature of modern capitalism that "starts" wars. Soviet responses will be, again by definition, defensive. Soviet responses will in all likelihood include preemption and some combination of active and passive defense, in order to limit damage to the homeland, and provide for the successful prosecution of the war effort.

The success of the Soviet response to nuclear crisis escalation depends heavily on the correct assessment by Soviet leaders of available strategic warning indicators.

The Soviets do not necessarily feel obligated to assist the United States in deterring, preventing, or reducing the consequences of political, diplomatic, or military crises. Political Scientist Alexander George has concluded that, by signing the "Basic Principles Agreement" of May 1972, designed to promote crisis prevention and control and reduce the risks of nuclear war between the superpowers, the Soviets "believed they had committed themselves to cooperate to prevent only those crises that threatened to result in a war with the United States."<sup>49</sup>

Nevertheless, the Soviets probably take the threat of nuclear crisis escalation very seriously, and approach this possibility with a great deal of caution. Soviet crisis management principles and approaches are examined in the paragraphs below.

---

<sup>49</sup> Alexander L. George, "Crisis Prevention Reexamined," in Alexander George, ed., Managing U.S.-Soviet Rivalry: Problems of Crisis Prevention, (Boulder: Westview Press, 1979), p. 368.



### E. Soviet Approaches to Crisis Management

One of the conclusions Hannes Adomeit reached in his book on Soviet risk-taking and crisis behavior was "the surprising degree to which Soviet behavior... reflected operational principles of the traditional Bolshevik belief system."<sup>50</sup> On the basis of a thorough examination of two cases, the Berlin crises of 1948 and 1961, Adomeit deduced a series of operational principles that guide Soviet approaches to crises. They are instructive both for their insights into Soviet thinking, as well as for their strategic significance. The points enumerated below are derived from Dr. Adomeit's deduced operational principles of Soviet crisis behavior:<sup>51</sup>

- (1) Do not embark on forward operations against an opponent which are not carefully calculated in advance and move forward only after careful preparation.
- (2) Carefully prepare the ground psychologically, make every attempt to demoralize the adversary, and soften his potential resistance by an alternation of severe pressure and holding out the prospect of compromise.
- (3) Push to the limit, engage in pursuit of an opponent who begins to retreat or make concessions, but know when to stop; resist from the start any encroachment by the opponent, no matter how slight it appears to be, but don't yield to enemy provocations and retreat before superior force.
- (4) Avoid the direct use of military force and use proxies wherever possible.
- (5) Before engaging in forward operations carefully construct a fall-back position so as to meet unexpectedly high resistance by the adversary.
- (6) Do not settle for a single probability estimate of unwanted risks that may develop in the future, but engage in sequential analysis.

---

<sup>50</sup> Adomeit, Soviet Risk-Taking and Crisis Behavior, p. 315.

<sup>51</sup> Ibid., pp. 317-324.

- (7) Never lose sight of the political objectives to be achieved, and in pursuing them do not let yourself be diverted by false notions of bourgeois morality.
- (8) Resist false bourgeois notions of pride and prestige.

Taken as a whole, these principles imply an assumption that time is on the side of the Soviets. The emphasis of these principles on caution, preparation, determination, and clarity of goals may profitably be considered by American naval planners.

#### F. Summary

A number of points are suggested by the foregoing discussion. First, Soviet caution with regard to nuclear crises is evidenced by the record of Soviet crisis behavior. Second, the Soviets have a substantial nuclear capability deployed at sea, as shown in Table 6 above, and believe that significant political and military benefits accrue from their nuclear arsenal. Third, the current condition of nuclear parity, or even Soviet superiority, favors Soviet aggressive behavior on the margins of the East-West conflict. Fourth, Soviet military doctrine emphasizes preemption and damage limitation as appropriate defensive responses to strategic warning that an enemy is preparing an imminent attack on the Soviet homeland.

These points should illustrate the seriousness with which U.S. naval planners must consider the Soviet threat to maritime forces. The Soviets obviously do not subscribe to Western concepts of "crisis stability" with its emphasis on disregarding or devaluing preemption as a viable policy alternative. This poses an important challenge to U.S. nuclear crisis management efforts.

## VI. CONCLUSIONS AND IMPLICATIONS: LONG-RANGE PLANNING PERSPECTIVES

The following paragraphs summarize the major points of the foregoing analysis.

1) Strategic nuclear weapons appear to have played significant, possibly even decisive, roles in terms of crisis response and management up to the mid-1970s. Prior to 1974, all 15 documented case where the U.S. flexed its strategic nuclear muscle, crises were ended on terms favorable to the United States, and ended quickly. Of course, during most of this period the United States enjoyed unquestioned strategic nuclear superiority. Since 1974, the United States has not redeployed or alerted strategic nuclear forces in response to a crisis.<sup>52</sup> The reasons for this may include the change in the strategic balance, the establishment of agreements on preventing nuclear war, the personal predilections of recent American leaders, or any number of other factors relating to the international or domestic environment within which those decisions are considered.

2) The literature on nuclear crisis management neglects to consider the role of maritime tactical nuclear forces, and may reflect the questionable assumption that such forces have no relevance to crisis response requirements, or that their role is limited to NATO Central Front contingencies.

3) Current crisis management wisdom may rely too heavily on the Cuban missile crisis as the archetypical example of successful nuclear crisis management. However, the unique circumstances surrounding that particular crisis may render it unsuitable for such a role. Current crisis management wisdom may also discount the deterrent value of maritime nuclear forces, and appears to make prevention of a war at any cost the ultimate

---

<sup>52</sup> Although two authorities conclude that the U.S. has on several occasions threatened to involve nuclear forces. See Barry Blechman and Douglas Hart, "Dangerous Shortcut," New Republic, 26 July 1980, pp. 13-15.



objective (rather than the successful achievement of supreme national interests).

4) The Navy is the service of choice in military responses to foreign crises. National security policy explicitly directs the Navy to be prepared to undertake operations in peace, crisis, and war environments. Official Navy policy is responsive to such directives. The Maritime Strategy, in particular, recognizes the importance of naval crisis response capabilities, and the importance of deterring conflicts before they become full-fledged wars.

Along these lines, an overview of public sources of information on U.S. Navy tactical nuclear assets shows a widely dispersed substantial capability for responding to nuclear contingencies. Due to the diversity and dispersal of maritime theater nuclear warfare capabilities, there is a high probability of such forces becoming indirectly involved in naval crisis management operations, if only by their inadvertant presence.

5) The ability of the Navy to successfully execute the Maritime Strategy could be significantly enhanced by adopting policies and guidelines relating to the role of sea-based nuclear weapons before, during, and after periods of crisis. In particular, maritime nuclear weapons may enhance naval crisis management by:

- o promoting strategic deterrence;
- o signaling U.S. resolve to counter Soviet escalatory actions (while avoiding increasing Soviet incentives for preemption should the conflict go nuclear);
- o enhancing the U.S. capability to respond to a wide range of nuclear and non-nuclear threats;
- o demonstrating to allies the depth of U.S. commitment to maintain alliance interests and counter Soviet and non-Soviet nuclear threats to allied territory;
- o fielding a capability to handle specific war-fighting missions should the crisis escalate to all-out war.



Conversely, sea-based nuclear weapons might impede naval crisis management by:

- o intimidating allies or neutral countries politically committed domestically to nuclear free zones;
- o posing opportunities for preempting naval nuclear assets should a general nuclear war occur;
- o provoking Soviet involvement, obliging the Soviets to extend nuclear guarantees to allies who might feel implicitly or explicitly threatened by U.S. nuclear weapons; and,
- o displacing conventional munitions that may be more applicable in limited combat situations.

The U.S. Navy must consider any crisis as a potential prelude to armed hostilities, and it must be prepared to transition effectively and successfully to higher levels of conflict at the direction of the national command authorities should the situation and U.S. national interests so require.

Naval policy and fleet doctrine should exploit the positive effects of nuclear-capable assets on crisis management efforts. Conversely, naval policy and fleet doctrine must be prepared to mitigate the negative impact of the presence of naval nuclear weapons in crisis situations. Some general recommendations might include the following:

- o maintaining discrete deployments, avoiding drawing public attention to the disposition and employment of navy nuclear assets (i.e., continuing the policy of "neither confirm nor deny");
- o avoiding undue concentration of naval nuclear assets in crisis zones; and,

## NAVAL NUCLEAR CRISIS MANAGEMENT

- o avoiding explicit or implicit nuclear threats against non-nuclear countries with security ties to the Soviet Union, or countries within reach of Soviet nuclear assets, unless the U.S. is prepared to deal with the consequences.

Other specific implications and recommendations are discussed below.

1. Objectives and Planning Principles for Nuclear Crisis Management. U.S. naval planning for crisis management should, of course, insure the widest possible latitude for NCA options in support of national interests. Many of the principles governing employment of naval nuclear assets for purposes of deterrence, escalation control, and war termination apply to nuclear crisis management at sea.

Official U.S. planning objectives regarding nuclear war involve three dimensions: deterrence, escalation control should deterrence fail, and war termination on favorable terms should escalation control in turn fail. These three objectives provide a tiered approach to planning for the event of nuclear war. Planning objectives for dealing with nuclear crises should reflect the same tiered approach. Such objectives should include:

- (1) deterrence: it should be U.S. policy to deter or prevent crises situations from occurring or from becoming nuclear crises that are detrimental to U.S. national interests;
- (2) escalation control: should the U.S. fail to deter a crisis, or prevent one from occurring, the U.S. should be prepared to control it from escalating to a nuclear crisis, or to a conventional or nuclear war; and,
- (3) crisis termination: should U.S. efforts to prevent a crisis from escalating to a nuclear crisis, or to full-scale armed hostilities, it should be U.S. policy to terminate the hostilities on terms favorable to the United States.

2. Naval Nuclear Weapons Missions in Times of Crisis. The maritime nuclear-capable forces of the United States must be

capable of sustained operations in crises. This will require stringent safety and control procedures, as well as enhanced operational security.

In times of crisis the missions of maritime TNF should include: deterring the use of nuclear weapons by hostile nuclear-equipped forces against U.S. sea, air, or land forces; signalling U.S. intent to control the escalation process; and, should deterrence fail, defeating the enemy's naval forces and land-based threats to U.S. naval forces.

Effective, credible, and well-deployed maritime TNF will enhance crisis management through reducing vulnerability to preemption; fielding dual-capable, multi-mission forces; threatening counter-strikes to enemy initiatives; and by supporting the U.S. ability to dominate the escalation process.

3. Fleet Doctrine for Nuclear Crisis Management. Standing instructions for fleet deployment and operations should continue the current practice of neither confirming nor denying the presence of nuclear weapons on naval ships.

Fleet doctrine for nuclear crisis management may have to account for the fact that a given platform's conventional force missions will most often determine that platform's deployment and operations. Some fleet doctrine issues for consideration by Navy strategic planners include: conflicts in operational requirements for conventional versus nuclear operations; fleet/battle group spacing for reducing or preventing multiple kills from single nuclear detonations; and, AAW and ASW missions in conventional versus nuclear environments.

Fleet doctrine should also consider the implications of joint exercises involving allied maritime nuclear forces. The extent to which the U.S. will have to coordinate crisis response/management actions with U.S. allies will depend, of course, on the circumstances of a given crisis. The following issues may need to be addressed:

- (1) French and/or British nuclear assets may be involved,



thus a crisis may involve nuclear weapons of a third party (not necessarily always an ally) and may threaten to escalate to exchanges of nuclear weapons without U.S. or Soviet intervention;

(2) the U.S. may need to take into account possible allied objectives in a given crisis situation;

(3) recommendations for coordination of naval nuclear forces with U.S. allies may have to be considered.

#### 4. Naval Nuclear Weapons Force Posture and Capabilities.

This category of implications involves considering overall U.S. policy, threats, tactics and operations, system and personnel survivability, as well as training and readiness.

Maritime TNF force posture and capabilities should, of course, be responsive to and compatible with overall U.S. for nuclear deterrence and stability. They should contribute to deterrence of nuclear attacks on the U.S. or its allies, and, in the event deterrence fails, promote escalation control and favorable war termination.

Maritime TNF force posture and capabilities will need to take the threat into account. In this regard, Navy strategic planners must consider the maritime TNF balance, Soviet behavior and policy for responding to potentially nuclear crises, Soviet theater nuclear warfare policy, as well as the emerging Soviet and Third World cruise and ballistic missile threats.

Tactics and operations issues revolve around improving force survivability, and reducing command and control vulnerabilities to nuclear effects.

The U.S. Navy should be sensitive to the potential for crisis situations to draw-down or degrade forces and/or platforms dedicated to SIOP missions or strategic reserve force missions. To what extent are these forces exposed to involvement in crisis situations?

Further, Navy strategic planners may wish to consider the



importance of encouraging serious and sustained thought on maritime theater nuclear warfare (and its relationship to war on land); implementing, improving, or upgrading formal training on maritime theater nuclear warfare employment and effects; and, the advisability of large-scale fleet exercises simulating a maritime nuclear environment.

5. Crisis Termination Policy. Standing down from a crisis is an area often ignored by contemporary analyses of crisis management. The deleterious effects of prolonged deployments in situations of heightened tension may strain crew morale and performance as well as equipment readiness and effectiveness. Could this present a window of vulnerability to enemy surprise attack, or to the enemy suddenly and effectively re-escalating the conflict on more advantageous terms?

Does the process of moving forces during de-escalation pose the danger of being misinterpreted by other crisis participants, or of spurring the crisis further? How can the vulnerability of standing forces down be reduced?

a) by incremental, phased de-escalation of forces engaged in the crisis?

b) by reaching a mutual understanding on standing down procedures among the crisis participants?

On the other hand, how does one protect the operational security of ones forces when exchanging information on standing down among the crisis participants?

These questions are among those raised by this report that warrant further study. Hopefully the sensitivity of naval planners to issues surrounding the involvement of nuclear forces in crisis situations will have been improved by the foregoing analysis.

# INITIAL DISTRIBUTION LIST

	<u>No. Copies</u>
1. Knox Library (Code 0142) Naval Postgraduate School Monterey CA 93943-5100	2
2. Director of Research (Code 012) Naval Postgraduate School Monterey CA 93943-5100	1
3. Chairman, Department of National Security Affairs (Code 56) Naval Postgraduate School Monterey CA 93943-5100	1
4. Defense Technical Information Center Cameron Station Alexandria, VA 22304-6145	2
5. Professor Kerry M. Kartchner (Code 56Kn) Naval Postgraduate School Monterey CA 93943-5100	10
6. U.S. Arms Control and Disarmament Agency Public Affairs Attn: Bob Waters Washington, D.C. 20451	1
7. Dr. Benson Adams Acting Commissioner, U.S.-Soviet Standing Consultative Commission Rm 5A670 The Pentagon Washington, D.C. 20301-2600	1
8. Science Applications International Foreign Systems Research Center 6021 So. Syracuse Way, Suite 300 Greenwood Village, CO 80111	1
9. Dr. Patrick Garrity Center for National Security Studies MS A-112 Los Alamos National Laboratory Los Alamos, New Mexico 87545	1

# INITIAL DISTRIBUTION LIST

10. Professor Don Daniel 1  
101 Fischer Circle  
Portsmouth, RI 02871
11. Dr. William C. Green 1  
Center for International Relations  
Boston University  
152 Bay State Road  
Boston, MA 02215
12. Professor Paul Hammond 1  
1566 Tiffany Dr.  
Pittsburgh, PA 15241
13. Dr. Ray C. Hillam 2  
Director, David M. Kennedy Center for  
International Studies  
237 HRCB  
Brigham Young University  
Provo, UT 84602
14. Dr. Stephan Kux 1  
Columbia University  
Box 53 1AB  
420 West 118th Street  
New York, N.Y. 10027
15. Prof. Albert Pierce 1  
Department of Military Strategy  
National War College  
Washington, D.C. 20319
16. Director, Center for Defense and 1  
Strategic Studies, Box 178  
Southwest Missouri State University  
901 So. National  
Springfield, MO 65804-0095
17. The Arms Control Association 1  
11 Dupont Circle, N.W.  
Washington, D.C. 20036
18. Dr. Peppino A. DeBiaso 1  
Analytical Services  
Suite 800  
1215 Jefferson Davis Highway  
Arlington, VA 22202
19. Center for Strategic Technology 1  
Texas A&M University  
College Station, Texas 77843-3572

# INITIAL DISTRIBUTION LIST

20. Dr. Richard D. Burns 1  
Director, Center for the Study of Armament and  
Disarmament  
California State University - Los Angeles  
5151 State University Drive  
Los Angeles, CA 90032
21. Professor David Alan Rosenberg 1  
Department of Strategy  
U.S. Naval War College  
Newport, RI 02841-5010
22. Dr. Richard F. Staar 1  
Coordinator, International Studies Program  
Hoover Institution  
Stanford, CA 94305-6010
23. Airpower Research Institute 1  
CADRE/RID  
Maxwell AFB, AL 36112-5532
24. Professor Eric Hyer 1  
740 SWKT  
Brigham Young University  
Provo, UT 84602
25. Chief of Naval Operations (OP-654) 1  
Analysis Branch Library  
Department of the Navy  
Washington, D.C. 20350-0999
26. Office of the Chief of Naval Research 1  
800 North Quincy Street  
Arlington, VA 22217
27. Center for Naval Analyses 3  
Attn: LT Nancy Jenkins  
Attn: CAPT Hank Davis  
Attn: Dr. James George  
4401 Ford Ave.  
P.O. Box 16268  
Alexandria, VA 22302-0268
28. Office of the Secretary of Defense 1  
Assistant Secretary of Defense  
(International Security Policy)  
Pentagon, rm 4E838  
Washington, D.C. 20301



# INITIAL DISTRIBUTION LIST

29. Colonel Frank J. Dellerman 1  
 Acting Deputy Director  
 Strategic Arms Control Policy  
 Office of the Secretary of Defense  
 Pentagon, rm 5A670  
 Washington, D.C. 20301
  
30. Office of the Secretary of Defense 1  
 Deputy Assistant Secretary  
 (Nuclear Forces and Arms Control Policy)  
 Pentagon, rm 4C762  
 Washington, D.C. 20301
  
31. Office of the Secretary of the Air Force 1  
 Attn: Policy and Issues Analyst (SAF/OSX)  
 Pentagon, rm 5C858  
 Washington, D.C. 20330
  
32. Office of the Secretary of the Air Force 1  
 Attn: Assistant Chief of Staff, Studies  
 and Analysis (AF/SA)  
 Pentagon, rm 4A932  
 Washington, D.C. 20330
  
33. Steve Cambone 1  
 SRS Technologies  
 1500 Wilson Blvd., Suite 800  
 Arlington, VA 22209
  
34. Professor Scott D. Sagan 1  
 Department of Political Science  
 Building 160  
 Stanford University  
 Stanford, CA 94305
  
35. Dr. Roger W. Barnett 1  
 Director, Strategic and Maritime Studies  
 National Security Research, Inc.  
 3031 Javier Road, Suite 300  
 Fairfax, VA 22031
  
36. Kenneth E. deGraffenreid 1  
 Senior Fellow  
 National Strategy Information Center, Inc.  
 Suite 601  
 1730 Rhode Island Avenue, N.W.  
 Washington, D.C. 20036

INITIAL DISTRIBUTION LIST

37.	CDR Bradd Hayes CINCUSNAVEUR Box 9 FPO New York, New York 09510	1
38.	Edward J. Ohlert SAIC 2111 Eisenhower Ave. Suite 205 Alexandria, VA 22314	1
39.	Prof. Albert Pierce Department of Military Strategy National War College Washington, D.C. 20319	1
40.	Toger Seidenfaden Weekendavisen Gammel Mont 1 1147 Copenhagen K Denmark	1
41.	David J. Trachtenberg Senior Defense Analyst Committee on the Present Danger 905 Sixteenth Street, N.W. Washington, D.C. 20006	1
42.	Professor David Alan Rosenberg Department of Strategy U.S. Naval War College Newport, RI 02841-5010	1
43.	Dr. Stephen Van Evera 199 White Street Belmont, Massachusetts 02178	1



DUDLEY KNOX LIBRARY



3 2768 00337204 6